1: Petrullo E-3 (1933-34) 1939 SS19 Yaruro SS19

606 daughter, but he should have married the daughter of one Juan
604 Bario, who was a parallel cousin of Landaeta, therefore, he actually married not his immediate cross cousin, but his cross cousin once removed. He kept strictly within the cross moiety marriage rule. However, this marriage brought complications in his life, because for all practical purposes he had two fathers-in-law to take care of rather than one. He solved this problem by living with Landaeta, his wife's father, half of the week, and the other half he spent with his uncle,

601
621
596

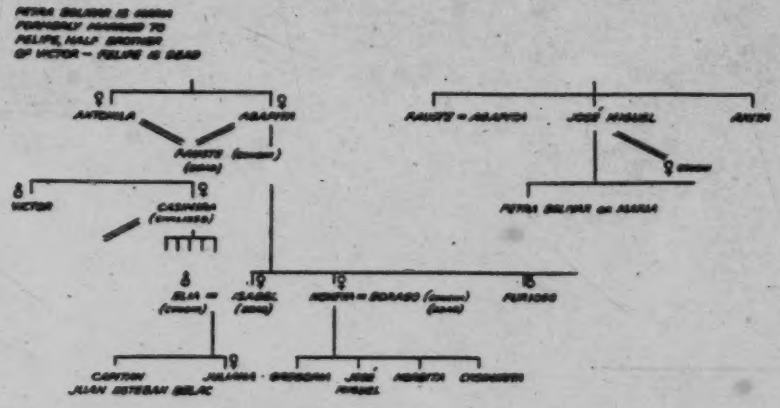

FIGURE 23.—Yaruro family hunting group at El Burro.

606 Juan Bario, whose daughter he would have married if she had lived.
604 The sense of service which he owed to his true uncle, his mother's brother, was strong enough to persist, even though it visited a hardship on him.

616 Within the tribal organization the individual looks to his moiety
476 for guidance, protection, and social intercourse. In return for this he is obligated to members of his moiety in a variety of ways. He acknowledges their affinity to him by seeking their company, by hunting together with them, and by sharing his food with them.

622 In the family hunting group its head is socially a stranger to most
593 of the people around him. Indeed, if he has no sisters or has sis-
626 ters who do not have any sons and has no brothers living with him, then socially he is almost out of place in the family hunting group. His wife, of course, belongs to the opposite moiety, and the children trace their descent through the mother. His wife's mother, sisters, brothers and their children belong to the same moiety
604 as herself. When his own children are old enough to take part in
593 hunting they look to their mother and to her brother, or brothers, for
476 guidance and it is toward the latter that they have all sorts of social obligations. To their father they show respect, but to the mother's

1: Petrullo E-3 (1933-34) 1939 SS19 Yaruro SS19

604 593 476 brothers they must make offerings of labor and food. In fact as soon as they are old enough to do so, the boys will spend a good portion of their time in the family group of their uncles on their mother's side. They hunt with him, they help him build his canoes, work for him, and take part in the feasts and ceremonies with him.

593 604 However, the father is interested in his children, especially when they are young, and treats them with the utmost kindness and they reciprocate by acknowledging filial respect. Perhaps it was this difference in the attitude between the uncle and the father that led [114] the missionaries to comment that the Yaruros and the Otomacos showed no respect for their fathers and often killed them.

601 A Yaruro makes no mistake between those individuals in his group who are related to him biologically and those who are merely related to him socially. For instance, he calls his father "aia" or "aiamái," and he calls his father's brothers by the same word. In fact he distinguishes between the older and the younger brothers of his father, so that he may call his father's elder brother "aiamái otéh," which is translatable into "elder father". He will refer to the younger brother of his father as "aiamái durimé," meaning "younger father." Not only does he call the brothers of his father by the same term as he addresses his own father, but the parallel cousins also are addressed by the same term. Since his own father must show respect to his older brothers, the son assumes the same attitude as his father toward the older members of the family. In the female line, he refers to his mother as "aí" and his mother's sisters as "aí" also, suffixing the term for older and younger as the case may be. The female parallel cousins of his mother are called by the same term.

On the other hand the sisters of the father are addressed as "haí" and the brothers of his mother are addressed as "hademái". It is these classes of individuals whom we can refer to as aunt and uncle.

His brothers he calls "ajimái" or "anyimai" and his sisters "aní". These terms are extended to his parallel cousins both on his father's and mother's side. The children of his father's brothers, and his mother's sisters, he calls "anyiná," if male, and "ani," if female. His cross-cousins he addresses as follows: "keramái", the sons of his mother's brother, which is equivalent to brother-in-law; "nyohé" the daughters of his mother's brother; "avimái", the sons of his father's sister; and "haí haó", the daughters of his father's sister.

There is a striking resemblance between the terms which he employs to indicate his grandchildren and his grandparents. The children of his daughter, if boys, he will refer to as "hiamai," if girls, "hiatokwi." The children of his son, on the other hand, if boys, he will call "hadamai," and if girls "hadatokwi." His grandfather on his father's side he calls "hadaoteh." His grandmother

1: Petrullo E-3 (1933-34) 1939 SS19 Yaruro SS19

601 marriage she called also "nyowuh", are referred to as "keramai". The father-in-law calls his son-in-law "haiméma'", which means "the one my daughter married", and the son-in-law calls his father-in-law "huíteh". His mother-in-law, whom he never addresses directly, he [606] refers to as "kaikamúe". The girl refers to her father-in-law as "kuinté". Before marriage the boy would have called his uncle, the brother of his mother, "húidemái".

616 There do not seem to be any rites or ceremonies from which members of the opposite moiety are excluded. According to my informants, the Puaná clan moiety is preeminent over the Itciai moiety, therefore the person recognized as its head is considered to be the [578] chief of the Yaruros. There is no resentment, as far as I was able to learn, to this arrangement. Primarily, I suppose, because the biological descendants of an individual pass from one moiety to another and therefore share in its prerogatives. The Yaruros' social concepts in respect to moiety membership is best expressed by reciprocal duties, obligations, and prerogatives. Under the elementary local system the son-in-law is almost a guest among his wife's people with whom he goes to live. During the rainy season when more permanent shelters are built, according to my informants, they have more ceremonies, during one of which the unmarried boys of one moiety then sit in the house of the other moiety.

616 Although there is no exclusion of the members of the opposite
796 moiety in the ceremonies, if the shaman is of the Puaná moiety,
791 those that sit closest to him are members of his own moiety. But even in this case the other moiety is represented, and in fact indirectly serves him. His own wife sits at his right and it is she who assists him when her help is needed by handing to him the various pieces of his paraphernalia and tobacco. It is she, likewise, who prepares the various drinks. The rest of the members of her moiety, if they happen to be present, take their places following the members of the shaman's moiety.

604 When a man is undertaking a hunt or wishes to build a canoe he
476 calls on his nephews, that is, his sister's sons, for help, and they are obligated to be at his service. This obligation and service, which begins as soon as the boy begins to understand his position in the society, lasts a lifetime. When the uncle or uncles become too feeble to hunt for themselves it is these nephews who supply them with food and everything else they may need. This service may be interpreted as compensation to the uncles for their daughters who become the wives of these youths. But there was no indication that it was so considered by the Yaruro.

593 h. A man, therefore, does not have the services nor the social life of
604 his children, but has to look to his sister's womb for individuals to educate and to assist him.

182 241 361 First, through time, the gardens tend to radiate further and further from any given residence point since, given the 13-year planting-fallow cycle, plots near the village will be exhausted. Since the major garden resource areas lie in a crudely east-to-west direction, there will be a slow westward migration of the geographic center of garden activities, enough so that at some point, the village is suspended, as it were, among distant resource points (see Maps), and enhanced by the dispersed nature of the hunting and fishing, and to some extent the gathering, areas. If the "suspension" is weighted more in one direction than another, there will be some tendency either to move the village or to send out temporary or permanent branches of it, respectively in the form of work cottages in the swiddens or in larger long-term house groups which are intermittently occupied. This process is, in fact, easily observed among the Yaruro in existent and abandoned house and subsidiary village sites scattered over the whole territory. Similarly, the locus of gathering, so important in [221] summer, moves further and further from the village. This, together with the considerable shift to fishing and river-hunting in summer, as well as the need for water, causes an extensive seasonal transhumance to occur within the territory. These factors contribute to fissioning as well as to inhibiting the development of permanently located villages, let alone larger aggregations. Thus, with a radiating ecology, a degree of group dispersion and geographical mobility within the territory is to be expected and is indeed characteristic of the Yaruro.

512 Second, if one examines the location of all resources it will be seen that, taken together, they constantly enjoin a dispersal of the labor force in all directions, regardless of season, so that more or less equivalent quantities of labor are being used at the same time in many varying kinds of productive activity independently of each other — at the peripheries of the territory, in the areas between, or in the village centers themselves, [462] where the women are constantly doing the significantly important work of [252] converting otherwise unusable food resources, like raw, bitter manioc or uncooked corn, into edibles.

● 476 Third, it will be noted that none of the Yaruro technological processes require cooperative work, even when they may permit it, if it were so desired. On the whole, the productive activities might be described as dispersive of labor, whether it is individuals or small groups of twos or threes who go out to keep each other company. Even the work of preparing [241] the swiddens is carried out individually, though two or three men may [463] work as neighbors in what appears as a single plot. Further, the technology [242] is such as to require no highly specific and difficult or esoteric skills. The most difficult skill to acquire is the knowledge of the soil types and appropriate planting procedures attached to each. Thus, each adult is in 462 a position to learn the inventory of technological knowledge appropriate 463 to his or her sex, and somewhat of that belonging to the other sex too, and to apply it by himself whenever he wants or must. A man, well-instructed in Yaruro technology, could probably subsist alone successfully for long periods of time. One divorced adult man, although he was largely fed by his

and then shooting into the still side pools of a stream into which he has driven a post with bait attached. He may also stand in a canoe to shoot. It is reported, though I have not myself seen it, that barbasco (*Jacquinia revoluta* or *mucronulata*) poison is used by some Yaruro.[12] No nets, weirs, traps, sweeps, or artificial fish pools are used.

Given the techniques and tools of the Yaruro, all the subsistence activities described can conveniently be done by one person. Some *must* be done by one person only, since the tools and techniques themselves do not permit two or more persons to operate jointly. As it were, the logic of the tools and techniques concerned demands utilization by single persons.[13] Some of the tools and techniques might conveniently involve two or more persons, e. g. lashing tree trunks together to make a fence or cornering a capybara, but do not definitively *require* more than one person. Activities of all sorts may be done by aggregates of persons, each utilizing his own tools and techniques individually but neither the activity, the tools nor the techniques entail the aggregation of individuals. Thus, from the point of view of human organization, the technology, by itself, entails no managerial functions, no coordination of tasks which must be overseen by someone occupying an appropriately defined status.[14] That is, there are no technologically determined positions of leadership in Yaruro society. Further, the technology as such entails no significant cooperation in work organization, even when this is convenient, and correspondingly, no standard work groups or management functions, as represented in some defined status, for facilitating cooperation are to be expected or to be found. In fact, Yaruro technology and resource distribution are such as to elicit considerable dispersion of activities and actors at any given time of work, and to inhibit the development of rank and the personal acquisition of superordinating prestige.

IV

We may now examine the habitat aspect of the ecological relationship. A clearly marked annual cycle occurs in the Yaruro habitat.[15] However, despite a sharp seasonal change from heavy rains up to 60 inches in one half of the year to almost

[12] Personal communication from Mr. Thomas Rootes who has studied Yaruro linguistics for a number of months, having visited several groups.

[13] Different kinds of tools require different kinds of organization. A simple hand saw can be used by only one person at a time. A logging saw, though it can awkwardly be used by one person, is surely best used by two persons. Certain other saws, e. g. jig saws, make up one of a series of machine processes on a single part of a product, the entire series being the unit of operation which requires a still more complex level of organization. Cf. Leeds, 1960 b.

[14] For the structure of argument which is involved here, see Leeds, 1960 b.

[15] 'Habitat' here refers to all physical objects and conditions of the environment which are relevant to the existence or production of resources as defined by the culture. For the most part, then, 'habitat' refers to those environmental conditions such as humidity, temperature, insolation, rainfall, etc., which affect the food supply, as well as the food and water available for animals and plants and other culturally relevant physical objects. By extension, it refers to daily, seasonal, annual, and long-term variations and cycles in the various relevant factors of the environment, whether climatic, geologic, or biotic, which affect any of these supplies.

4: Leeds E-5 (1958) 1960 SS19 Yaruro SS19

along the west-to-east flowing rivers in ribbons some kilometers wide. Most significant fauna and flora of economic use occur in these ribbons. This ecological distribution of resources governs subsistence activities whether they be mainly hunting, fishing, collecting, or horticulture.

Yaruro subsistence comprises all these activities. (2). Horticulture in the rainy season appears considerably to outweigh all other sources of food together, but in the dry season, hunting, fishing, and collecting perhaps equal or outstrip horticulture. In any case, slash and burn gardening of manioc, corn, plantains, and a number of lesser crops is by far the single most important economic activity. The technology is exceedingly simple in all aspects of production, the main tools being the machete and digging stick. The most elaborate technology occurs in the conversion of food into edibles and in the manufacture of hammocks, pottery, objects of wood such as canoes, and woven containers of all types.

The economic organization displays a sharp division of labor between men's and women's work. Men do all hunting and fishing, make all objects of wood, haul lumber and householding materials, make hammocks, and carry out the heavy labor of gardening. Women do most of the collecting of roots, seeds, and fruits. Since collecting contributes a substantial portion of the food supply in summer, woman's contribution, here, is of considerable communal importance. Women's work, a continuous activity from dawn to dusk, is, first, the conversion of raw foodstuffs into edibles. Second, women make all pottery, mats and baskets, the manioc squeezers, and much of the cord used to make hammocks. Another important contribution of women is their help in harvesting in the gardens. Men sometimes help the women with the cookery.

Men may work alone, in groups of 2 or 3, or in larger groups on rare occasions. No occasion exists for all men to work at a single task since there is no technological need for it. Women's work groups for collecting or householding are of similar size. Work group alignments are often based on choice or accident but in other instances coresidence and kinship are determinants. The household, however, constitutes the only really necessary cooperative group for production. The man is a funnel for produce which the woman converts to

(2) The present description applies to the Cinaruco River Yaruro where the major part of the writer's field work, supported by a grant from the Social Science Research Council, was done. The Capanaparo River Yaruro were reported by Petrullo (1939) and Le Besnerais (1948) as being hunters and gatherers, although Le Besnerais observed small horticultural patches which he claimed were diffusions from Venezuelan farmers which had occurred recently. Le Besnerais in 1954 states directly that they were horticulturalists, omitting any mention of possible diffusions from Venezuelans. The passing mention of horticulture by Fiasson (1947) confirms the present writer in his opinion that, although horticulture may be more restricted on the Capanaparo than on the Cinaruco and Cunaviche-Arauca (where the writer also spent several weeks) which are not discussed at all by Petrullo or Le Besnerais, nevertheless, the absence of horticulture is probably not aboriginal with the Yaruro as has been suggested by Kirchhoff (1948, p. 456). Rather the restricted gardening is a result of ecological conditions on the Capanaparo which are less favorable to horticulture than on the neighboring rivers, combined with extremely violent acculturation, including large-scale massacres of natives. The only other possibility, in my opinion, is that horticulture was introduced by the missionaries in the early part of the Eighteenth Century, which is certainly the period when the Yaruro first became acquainted with iron tools (cf Lodares, 1922).